

POWER SOURCE

A Corporate Publication of Santee Cooper

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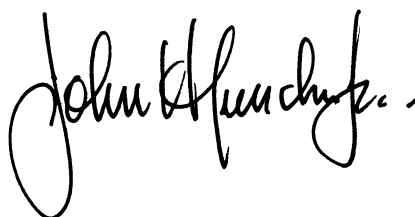
Green Power from Santee Cooper

*"The lofty oak from a small acorn grows."
—Lewis Duncombe*

GOING GREEN

Green is a universal symbol for moving forward. We stop for traffic signals, wait through yellow and then proceed when they turn to green. Green is a familiar symbol indicating financial success. It is also the wholesome color representing the environment.

Utilities today are embracing environmental challenges and opportunities in practically every phase of their operations. They are responding by burning cleaner fuels, reducing emissions and employing modern technology to improve efficiency. They are also using environmentally friendly chemicals and materials, turning generation wastes into useful byproducts and printing on recycled paper with soy-based ink. Utilities, including Santee Cooper, are also responding by producing electricity in ways that are more sensitive to the environment.




*John H. Tiencken Jr.
President and Chief Executive Officer*

Santee Cooper is proud to introduce Green Power — South Carolina's first renewable energy program. We will generate environmentally clean electricity by using waste gas from landfills.

We believe that tapping into renewable resources as a source of energy — be it ever so small — is the right thing to do. It is right because it is in accord with the spirit of protecting and improving one of our most important resources — the world we live in.

Using landfill gas for energy is also the best thing to do because it is the

most practical and most affordable renewable resource available in our geographic area at this time — and it offers the greatest potential. Presently, solar generation is too expensive, wind power is too limited and new hydro is non-attainable.

In this issue of PowerSource, I hope you enjoy reading about this venture of turning waste into watts. It's new and has statewide potential as an environmentally friendly and renewable source of energy.



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STATE'S FIRST GREEN POWER FLOWS FROM HORRY COUNTY LANDFILL

Santee Cooper's Green Power Generating Station Heralds New Era in Power Production, Turning Waste into Watts

On Sept. 4, a new brand of electricity began flowing in South Carolina. On that Tuesday, Santee Cooper's 2.2-megawatt methane-fueled generating plant officially began producing "green power" at the Horry County Solid Waste Authority's landfill near Conway.

And what is green power? It is electricity generated using a renewable resource. In this case, decaying refuse at the landfill produces methane gas.

Instead of being vented into the atmosphere, this naturally occurring fuel is put to good use. Other examples of

power from renewable resources include solar and wind.

"We had all the key ingredients here to make for a good landfill gas to energy project," said Bill McCall, Santee Cooper's executive vice president and chief operating officer. "It's exciting to be the first in the state to make power for commercial sale. But the main ingredient we've had in all this is the cooperation of those involved. Santee Cooper on its own, could not have made the project happen."



POWER SOURCE

Twenty-cylinder Jenbacher generator produces enough electricity to light up more than 9,000 homes.



"The consensus of our board was that this project was simply the right thing to do," said Carson Benton, chairman of the Horry County Solid Waste Authority Board of Directors. "It helps the environment by capturing this gas. It's not being released into the atmosphere."

This aspect is important because methane is considered a "greenhouse gas." The release of greenhouse gases into the atmosphere is cited as a prime culprit in the theory of global warming, a disputed but prevalent theory among scientists.

At full capacity, Santee Cooper's green power plant will have the same positive environmental impact as planting

more than 15,000 acres of trees.

That's enough trees to cover an almost 24-square mile area.

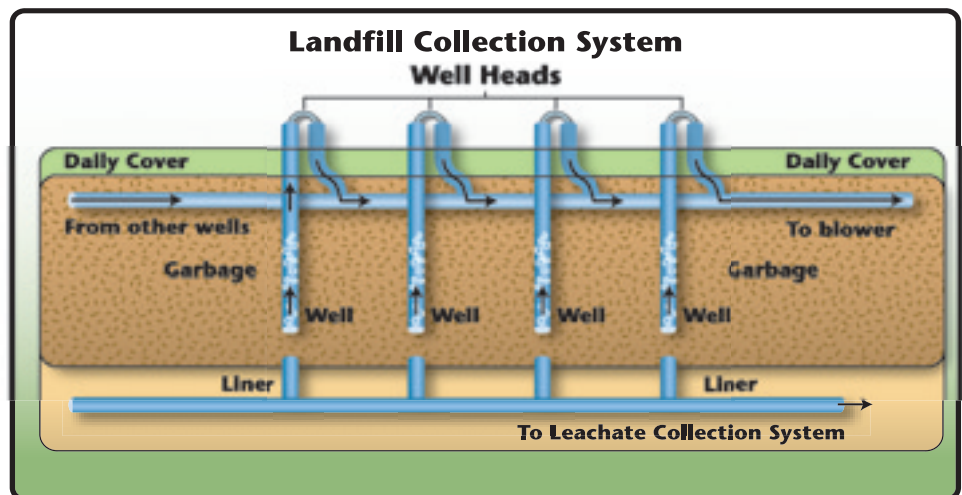
The Santee Cooper Board of Directors voted in October 2000 to proceed with the project. In the arrangement, the Solid Waste Authority owns the drainpipes, gas collection lines and fan and filter system. Santee Cooper owns and operates the generating equipment, which is controlled and monitored from the Grainger Generating Station a few miles away.

The next step involved getting the power to the people. From Santee Cooper's perspective, there was a technical hurdle. While Santee Cooper serves Conway,

there aren't any Santee Cooper electric lines in close proximity to the site. But Horry Electric Cooperative lines were.

"That's when Horry Electric Cooperative stepped up and rebuilt two miles of feeder line," said Pat Howle, the co-op's chief executive officer and executive vice president. "We've been involved from the beginning when community leaders were asking if such a project could be done. We've all worked in unison on Green Power. It shows what can be accomplished when leadership comes together."

Santee Cooper generates almost all of the power provided to Horry Electric Cooperative and 19 other electric cooperatives by its wholesale supplier, Central



Electric Power Cooperative based in Columbia. Central is the single largest customer of Santee Cooper, accounting for approximately 50 percent of Santee Cooper's megawatt-hour sales.

"We are glad to be a part of the Green Power project", said Pinckney Roberts, Central's president and chief executive officer. "Since our member cooperatives serve over 600,000 retail consumers, the ability to offer this unique form of power to them is an exciting opportunity."

There may also be opportunities for additional Green Power in South Carolina. Santee Cooper is looking at other potential landfill sites in the state. It's estimated up to 30 landfills may provide enough methane to make power. The U.S. Environmental Protection Agency states as many as 700 landfills across the land could be suitable sites. Of the 6,000 landfills in operation, only about 240 are producing electricity with methane as a fuel source.

The marketing of Green Power is now underway. Santee Cooper has about 124,000 retail customers in Horry and Georgetown counties. It's being offered now for an extra \$3 per 100 kilowatt-hour block on a customer's bill. Residential and commercial customers are now being signed up for the 9,300 blocks available. Horry Electric Cooperative will soon market Green Power to its customers at the same price.

"The Green Power program for customers is entirely voluntary and the premium charged will be used to fund other Green Power projects," said Lonnie Carter, Santee Cooper's

senior vice president of corporate planning and bulk power.

The first two generating units for the Green Power station cost about \$2.5 million and if there's a sufficient quantity of gas, two more Jenbacher units will be added, increasing the total station cost to approximately \$4 million.

"We feel we have a bright future in Green Power," said Santee Cooper President and Chief Executive Officer John Tiencken. "When and where we can, Santee Cooper will continue to move forward on projects that benefit the environment and our state."





Santee Cooper is on a mission:

IMPROVING THE QUALITY OF LIFE THROUGHOUT SOUTH CAROLINA

Working with communities and local governments to stimulate economic growth and development

The primary focus of Santee Cooper's economic development program for more than half a century can best be described by one short term — quality of life.

"That's the way it was in the very beginning and the way it will always be," explains Senior Vice President Ben Cole,

whose responsibilities include the areas of economic development, community relations and corporate communications.

"The need for creating jobs and improving the quality of life for all South Carolinians was expressed by the 1934 enabling legislation that created the South Carolina Public Service Authority

for the purpose of constructing and operating the Santee Cooper Hydroelectric and Navigation Project," says Cole.

He notes that Santee Cooper became a reality when a persistent U.S. Senator James F. Byrnes convinced President Franklin D. Roosevelt to provide the New Deal funding for something that would

BP's Cooper River Plant near Charleston was one of the major industries that moved to the South Carolina Lowcountry during the 1970s to take advantage of the Charleston port and low-cost Santee Cooper power.

Senior Vice President Ben Cole and Economic Development Manager George Haygood.



help pull mostly jobless South Carolina out of the depths of the Depression.

“Senator Byrnes persuaded the president that economic recovery could be accomplished by lighting up and energizing the rural areas of the state, which were 93 percent without electricity. The means for doing that was to create the power-producing state authority that came to be known as Santee Cooper.”

Electrifying the rural areas would improve the quality of life for those who lived there, Byrnes insisted. It would also provide the means to create jobs. Providing power to rural areas allowed for the expansion of business and industry, which at the time were clustered primarily in the urban centers of the state.

His prediction proved true.

Santee Cooper first generated electricity on Feb. 17, 1942. As transmission lines were built, power flowed to customers in Berkeley, Horry and Georgetown counties, and ultimately to 15 electric cooperatives serving customers in 38 counties.

Power also flowed to major industries and businesses that made the decision to locate in areas that offered service by Santee Cooper or one of the electric cooperatives. Those industries and businesses brought jobs, increased economic activity and stimulated growth in their respective communities.

“That’s how economic development worked back then and how it still works today,” Cole points out.

Today, Santee Cooper’s corporate mission and economic development efforts are still focused on improving the quality of life, says Economic Development Manager George Haygood.

“Emphasizing the benefits that result from economic growth — primarily the creation of quality, higher-paying jobs, Santee Cooper has featured low-cost and reliable electric power as our major attractions.”

“For decades, low-cost and reliable power were the primary determining factors in convincing firms like Georgia-Pacific, Georgetown Steel, Wellman Industries and AVX to locate or expand their operations to the areas served by Santee Cooper. More recently, firms such as Amoco (now operating as BP), Alumax (now operating as Alcoa-Mt. Holly), National Welders and Nucor Steel have combined low cost and reliability with a variety of enticements, incentives and other factors in making their siting and relocation decisions.”

Other factors include the availability of a qualified or trainable labor force and close proximity to materials, markets and transportation infrastructure.

Below right: In the last paragraph of his 1934 letter approving funding for the Santee Cooper project, President Franklin D. Roosevelt expressed his confidence in the utility's economic development potential.

"While all these factors remain important," says Haygood, "prospective industry now wants sites and buildings immediately available for occupancy with all environmental assessments completed and the necessary infrastructure in place."

"Product" is Priority for Site Seekers

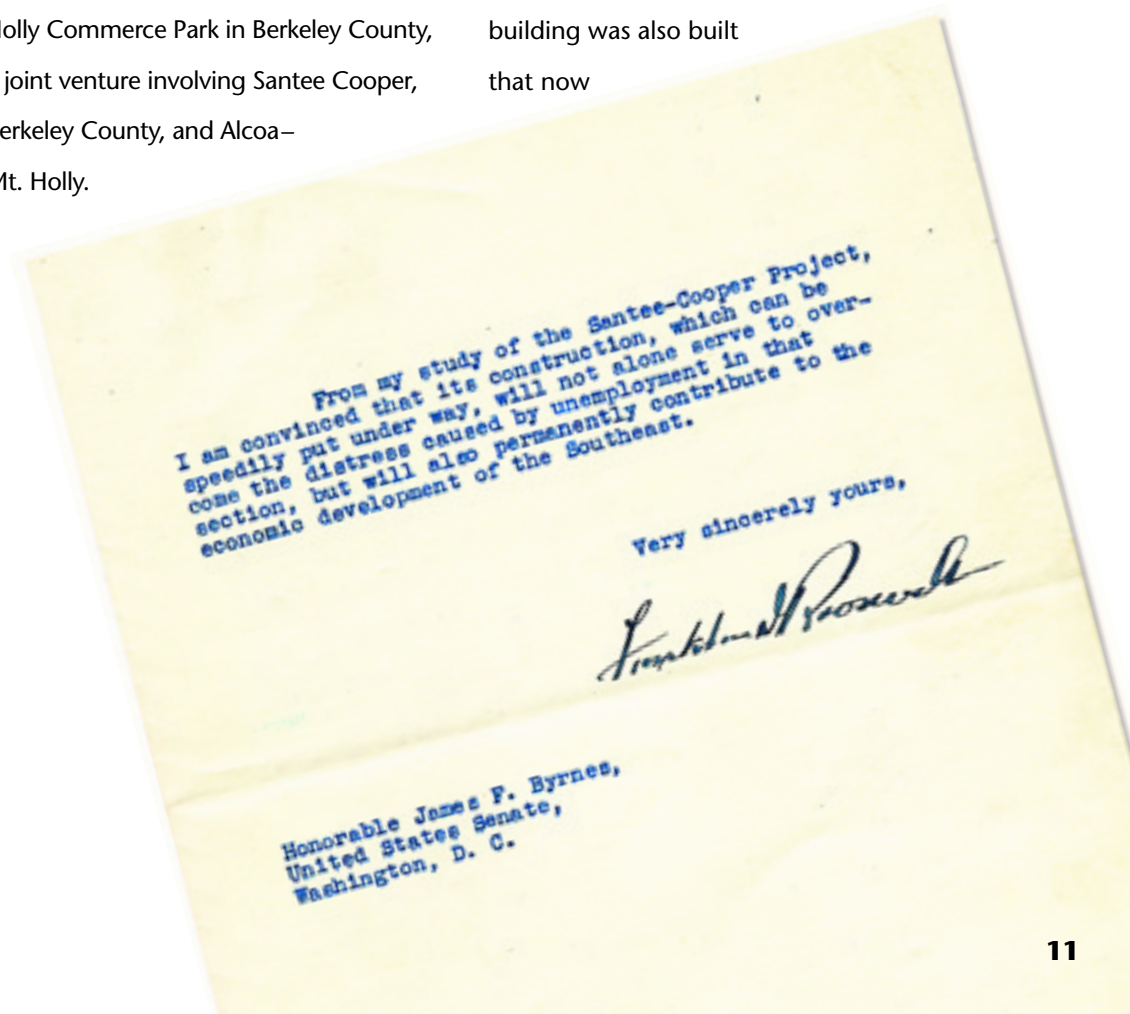
That "ready-to-move-in" combination of factors is wrapped up in what Haygood defines as "product."

"It's a matter of being ready with a site and/or a facility that will allow a business or industry to locate or expand

with the greatest ease and the most cost efficient and beneficial results," Haygood says.

That right combination of site and facilities is being offered more and more in the form of industrial and commerce parks, located in rural areas close or contiguous to Santee Cooper's retail service territory. Examples include the Mt. Holly Commerce Park in Berkeley County, a joint venture involving Santee Cooper, Berkeley County, and Alcoa—Mt. Holly.

When the Mt. Holly Commerce Park opened in 1999, it was highlighted with the announcement by Parker Hannifin, a Fortune 500 company, for location of its new high-tech manufacturing facility. Today, Parker-Hannifin employs 80 workers and manufactures fuel nozzles for power generation equipment. A 56,000-square foot speculative building was also built that now



houses Jomar Inc., a distribution warehouse for DuPont's nearby Cooper River plant.

Just 32 miles up U.S. Highway 52 in St. Stephen, Mayor Bobby Hoffman announced the decision in early 2000 for Acutec Precision Machining to locate its manufacturing facility in the town's new industrial park, which was the result of having the right "product" available for the Pennsylvania-based company. Economic development assistance and support from Santee Cooper were critical in that decision, Haygood points out.

The Loris Commerce Center in Horry County is another example of how product has served as an economic development magnet for the local community. It is another cooperative venture—between Santee Cooper, the town of Loris and PARTNERS Economic Development Corp.

Santee Cooper provided design and development assistance and funding for the park and invested in construction of the 25,000 square foot shell industrial building, which is presently being eyed by several industrial firms as a potential location.



Mayor Bobby Hoffman of St. Stephen announces new high-tech firm to locate in the town's new commerce park.

"These projects are all resulting in the creation of direct and spin-off jobs that will enhance the communities where they are located," explains Haygood. "After all, that's what Santee Cooper's economic development program is all about."

"In addition to helping develop product to attract new and expanded business to our direct service territory, we work hand-in-hand with the electric cooperatives that purchase and distribute Santee Cooper power throughout the state. Together we created a promotional





Atlantic Center for Business and Industry in Conway, is a 150-acre industrial park developed jointly with Horry County in 1987 when one of the area's largest manufacturing operations closed its doors. Today Atlantic Center is operated by the county and is home for 12 businesses and industries, which have provided investments of more than \$40 million and employment for approximately 530 people.

organization, Palmetto Economic Development Corp. in Columbia, to spread the word about the state's industrial attractions. With this 'South Carolina Power Team' (see accompanying article), the same low-cost and reliable power has helped the electric co-ops attract such firms such as Nan Ya Plastics, Williamette Industries, Honda, Quozel and Caterpillar."

Looking to the future, Santee Cooper is working with communities and local governments to develop more economic development "product" in terms of industrial and commerce parks, shell buildings and other incentives that can

stimulate economic growth and development. Georgetown County and Upstate counties in close proximity to the Rainey Generating Station in Anderson County are among the new prime locations being considered.

Economic Development Helps Expand Tax Base

Haygood says many people do not realize that most of the services they demand and require are paid for by a limited sector of the economic tax base—business and industry.

"Were it not for the contributions business and industry make to the tax base, no economy or government would

be able to supply many of the services they now provide."

In a typical municipal economy, says Haygood, business and industry account for about 65 percent of the tax base, while residential taxpayers contribute only about 35 percent. "Without business and industry, governments would either have to raise taxes or cut services. By helping business and industry grow and prosper, tax bases broaden for the support of all the community demands."

For Santee Cooper, says Cole, economic development is all about working with and building relationships within the communities where the utility serves as well as throughout the state.

"It involves developing alliances with those entities that can work together to help produce value-added, high-quality, better-paying jobs, particularly in areas where employment is not readily available. It's our way of investing in the future of those areas and in the state where we serve."

Left: New 25,000 square-foot shell industrial building in Loris Commerce Center.



SOUTH CAROLINA'S POWER TEAM ENERGIZES RURAL COMMUNITIES

South Carolina's electric cooperatives and Santee Cooper join forces to power economic success statewide

South Carolina's 20 electric cooperatives distribute Santee Cooper-generated power throughout the Palmetto State. However, that power includes more than electricity. As active members of the state's economic development ally network, the co-ops and Santee Cooper make up the "South Carolina Power Team," an effort that contributes significantly to the economic development of predominately rural service areas.

Much of that effort and success is being achieved through the Palmetto Economic Development Corp., a Columbia-based economic development operation that coordinates the resources of this power team.

When Congress created the Rural Electrification Administration in 1935, the electric co-ops had one mission: to provide electricity to rural America. Because these power customers were

mostly families, farms and other small-scale power users, it was mistakenly believed that those early systems were insufficient to support large manufacturing operations.

In South Carolina, the co-ops' true capabilities were demonstrated in 1973 by Fiber Industries' choice of Pee Dee Electric Co-op for its 40-megawatt plant in Darlington County. Any lingering misconceptions were finally put to rest



Nan Ya Plastics, straddling the Williamsburg and Florence County lines, is the largest industry in South Carolina to locate in an electric cooperative service area. Their electric service is provided by Santee Electric Cooperative.



Del Web's Sun City/Hilton Head community is home for about 4,000 residents and is served by Palmetto Electric Cooperative.

more than 10 years later, when Willamette Industries chose rural Marlboro County for the site of its new \$325 million paper mill. In doing so, it selected one of the state's smaller electric co-ops for its 70-megawatt electric service.

Bill Fleming, president and chief executive officer of Marlboro Electric Co-op, recalls that as a defining moment, one that dispelled any doubts about the ability of co-ops to deliver industrial-sized power loads. "Willamette's choice of our

co-op was final confirmation that rural South Carolina can provide any industry what it needs," he says.

The Willamette announcement was quickly followed by Nan Ya Plastics' decision to build a new polyester plant on the border of Florence and Williamsburg counties. Today that plant, which is served by Santee Electric Co-op, represents more than 1,000 jobs and a capital investment of nearly \$1 billion. Over the past 10 years, electric co-op service areas have been chosen by more

than 100 industries. Those include Teledyne-Allvac, International Paper, AlliedSignal, Diebold, Caterpillar, Honda and Walt Disney.

In addition to providing powerful statements about the capabilities of electric co-ops, the selection of these locations also highlighted the effectiveness of their economic development program. By the late '80s, industry's interest in the electric co-ops' predominantly rural service areas was intensifying. In response to an increasing demand for economic development assistance, the electric co-ops joined with Santee Cooper to expand their promotional efforts and their ability to help industry site new facilities.

The result was the joint creation in 1988 of Palmetto Economic Development Corporation, a private, non-profit marketing organization. This coalition of electric generation, transmission, distribution and marketing entities represents the largest geographical service area in the state and the only electric utility system with service throughout the state.

Ralph U. Thomas, Palmetto Economic Development's president, says his organization provides Santee Cooper and the co-ops with a way to coordinate their joint economic development efforts and resources more efficiently and effectively.

"We'll always have the same primary goal as in the beginning — capital investment and more and better jobs in our service areas," says Thomas. "We'll work to this end by promoting the industrial attractions of the state, first and foremost, and by helping rural South Carolina prepare their resources to compete for new business and industry. Our involvement in more than \$4.6 billion of new capital investment and the creation of nearly 21,000 new jobs makes us very proud."

The South Carolina Power Team has offered special opportunities to local economic development offices, ranging from a computer-based research tool for targeting prospective industries to greater Internet exposure, and financing Web sites for interested counties.

At the same time, individual co-ops have continued their own efforts.

In Sumter County, for example, Black River Electric Co-op led the development of an industrial park and three shell industrial buildings within the park that now house major industries.

In the Piedmont, York Electric Co-op developed a 465-acre industrial park and

two shell buildings. The park is now home to nine manufacturers, four of them international companies.

Electric co-ops also spearheaded development of new industrial parks in rural communities, including Calhoun County (Tri-County), Colleton County



S.C. Power Team President Ralph Thomas, Komatsu General Manager Hiroshi Yoshimoto and Newberry Electric Cooperative President and CEO Dan Murphy at the firm's Newberry manufacturing operation.

(Coastal), Chesterfield County (Lynches River), Kershaw County (Fairfield), Marion County (Pee Dee) and Williamsburg County (Santee). Santee Electric Co-op worked closely with Williamsburg County officials to secure federal loan and grant monies not only to create the industrial park but also to establish a revolving fund for economic development from the subsequent sale of property within the park.

Industrial parks in Berkeley, Dorchester, Horry, Newberry and Pickens counties were also made possible with assistance from Berkeley, Edisto, Horry, Newberry and Blue Ridge electric cooperatives, respectively.

However, economic development doesn't always mean manufacturing. One of the best examples is the multimillion dollar retirement community, Sun City/Hilton Head. Palmetto Electric Co-op has assisted Sun City developer Del Webb, from the earliest days of their site search in South Carolina's Lowcountry. The 8,000-home residential community has proven to be a dynamic engine of growth in the Southern corner of the state.



Honda Rubicon FourTrax Foreman all-terrain vehicle is manufactured in Honda's Timmonsville plant, which is served by Pee Dee Electric Cooperative.

Tom Upshaw, president and CEO of the co-op, observes, "Our economy in the Lowcountry and sea island areas of South Carolina centers around resort-style living. Sun City/Hilton Head and other major residential developments are taking us to new heights. In addition, the influx of new residents also is fostering tremendous growth in the commercial sector of our economy."

Recognizing that cash-strapped local governments often need financial help in preparing their rural areas for new industry, the state Legislature, in the Rural Development Act of 1996, granted a tax credit to certain utilities for monies spent to help pay for the infrastructure needed by new and expanding companies.

In 2000 alone, the state's electric cooperatives provided approximately \$4 million for infrastructure assistance.

Financial assistance is also available through the Santee Cooper Economic Development Investment Fund (SCEDIF) administered by Palmetto Economic Development and funded by Santee Cooper.

Notable projects made possible by the fund include industrial parks in Marion and Clarendon counties and a shell building in Kershaw County. Mid-Carolina Electric Co-op also utilized the fund to help build United Parcel Service's computer center in Lexington County.

With matching funds from an electric co-op, SCEDIF can help with site preparation or building improvements for new and expanding industries. Small grants for technical assistance are also available. This fund has committed more than \$6.5 million toward such projects since 1989.

For the past several years, the S.C. Department of Commerce has made rural

economic development a top priority, and has asked its economic development allies for assistance in creating more opportunities in the state's rural counties. As the electric cooperatives are uniquely positioned to respond to that call, active participation of co-op officials in local economic development efforts throughout the state has become the norm. Marlboro Co-op's Fleming typifies that involvement. He helped found and has chaired the Marlboro Economic Development Partnership, the county's program to bolster the area's infrastructure and promote its attractions to prospective new industry. David Felkel, president and CEO of Edisto Electric Co-op, serves on the board of directors of the Charleston Regional Development Alliance.

Gary Stooksbury, CEO of Aiken Electric Co-op and a member of the board of the Aiken-Edgefield Economic Development Partnership, summarizes it well: "As consumer-owned, not-for-profit entities, electric cooperatives are mirrors of the communities they serve. They battle every day to attract more and better jobs to the area. So we pitch in, wherever we can, to help those efforts succeed."

New and expanding co-op-served industries investing about \$500 million and providing 1,000+ jobs

During the past 12 months, announcements by industries locating in areas served by South Carolina's 20 electric cooperatives have begun providing more than 1,000 new jobs and investments of about \$500 million in new facilities and expansions. Among the major announcements are:

ClientLogic Inc.—The Canadian-owned company with headquarters in Nashville is investing \$4 million and will employ 430 people in its customer-contact and fulfillment center in Williamsburg County, supporting the broadband Internet industry. *Served by Santee Electric Cooperative.*

Corning Cable Systems Inc.—The Corning, NY-based company is investing \$8 million and will employ 32 people in its 250,000 square-foot facility in Dorchester County. They will manufacture coaxial cable for the cable television industry. *Served by Berkeley Electric Cooperative.*

Crenlo Inc.—The Minnesota-based firm is investing \$35 million and will employ 150 people in its 240,000 square-foot facility in Darlington County. They will manufacture cabs for industrial and agricultural off-road vehicles. *Served by Pee Dee Electric Cooperative.*

Mausashi South Carolina—The Japanese company is investing \$20 million and will employ 70 people in its 120,000 square-foot facility to manufacture precision vehicle parts in Williamsburg County. *Served by Marlboro Electric Cooperative.*

Newman Technology South Carolina—This auto parts maker is investing \$15 million and will employ 92 people in its 136,000 square-foot facility in Aiken County. It will make parts for Honda's Timmonsville plant and supply Honda minivan makers in both the U.S. and Canada. *Served by Aiken Electric Cooperative.*

Pine River Plastics Inc.—This Michigan company is investing \$6 million and will employ 39 people in its 37,000 square-foot facility in Oconee County. Products made in its injection molding facility will include handles for LA-Z-BOY, cellular phone housings for Motorola and interior trim components for top automotive market suppliers. *Served by Blue Ridge Electric Cooperative.*



POWER 101—SOUTH CAROLINA'S TEACHERS TAKE RENEWED ENERGY BACK TO CLASSROOMS

They sat bright-eyed in front of the teacher. They looked with awe. They raised their hands to ask questions. But they weren't school-age children. They were actually teachers from across South Carolina—back in the “classroom” at Santee Cooper this summer to learn new things to take back to their students.

Each year, some 80 teachers from various school districts across the state take part in a four-day Santee Cooper Energy Educator's Seminar. The seminar is held three consecutive weeks in July with about 25 to 30 teachers in each class. Participation earns teachers three hours of recertification credit. During class days,

they tour an industrial facility, one of Santee Cooper's generating stations, an historic park, and even get to play with some bugs.

“My principal attended this program a few years back. He came to me this year and said, ‘Fit it into your summer calendar. I really want you to attend

Santee Cooper's seminar this summer,’” said Tammy Cannada, an elementary school teacher at Mountain View Elementary School in Taylors, S.C.

“I signed up. Now I'm ready to learn.”

Day 1

Following an early registration at Wampee, Santee Cooper's Training and Conference Center, the teachers hear details of what they will be doing the next four days. Then, lunch is served. The teachers are going to need their

Where's the gator? Teachers paddle through cypress swamp environment of Old Santee Canal Park.

nourishment to take on the agenda for the week.

The teachers board vans and take a 45-minute journey north to the Cross Generating Station, located just off the Diversion Canal connecting lakes Moultrie and Marion. They visit the Aquaculture Center, where weed-eating fish are raised to help control the spread of nuisance aquatic weeds in the two lakes. In the station's control room, they observe operation of the power plant, and crossing the station's turbine floors, they ascend to the top level of Cross Station for a panoramic view of the lake system.

Following the tour, everyone boards the vans and heads to Santee Cooper's corporate headquarters in Moncks Corner. Once there, they look inside the Energy Control Center, a mission-control type environment where they see operators dispatching the flow of Santee Cooper power to more than 1.6 million South Carolinians.

Boarding the vans a final time that day, the already tired teachers

head back to Wampee for dinner and participation in an energy-unit planning session where they develop information to be used in their classrooms in the upcoming school year.

Day 2

The teachers rise and shine early at Wampee. They board their vans for a journey to Alcoa, Santee Cooper's largest industrial customer. Just imagine: it's mid-July in South Carolina, and the group is trekking the half-mile long pot lines of an aluminum smelting facility where the



lightweight molten metal reaches temperatures of over 1,000 degrees Fahrenheit. So, to say it's hot is an understatement.

The teachers learn about the recycling value of aluminum and how it is smelted and molded into useful products.

After an Alcoa-hosted lunch, they return to Wampee to begin learning about electricity and energy. They learn how Santee Cooper markets its power,



Arian Peterson, a teacher at Killian Elementary School in Columbia, applies proper insulation to a model house.



Left: Auxiliary Operator Michelle Elkins explains power plant operations detail to Kay Smith, a teacher at Northside Elementary School in Seneca.

Below: Entomologist Larry Motes discusses some of the six and eight-legged creatures common to the South Carolina Lowcountry.



how to build an energy-efficient house and a few facts about deregulation and the restructuring issues facing the electric utility industry.

The Energy Educator's Seminar includes hands-on activities that complement the "classroom" presentations. "One example is the Insulation Station activity that we use as a follow-up to the Good Cents presentation," said Educational Assistant Diane Vascovich.

"Santee Cooper provides each teacher with an insulation station kit. This contains a ready-to-assemble model house and supplies they can use in the classroom and science laboratories to conduct hands-on learning activities on insulation, thermal flow, and home-energy efficiency."

After an afternoon filled with presentations and hands-on activities, the teachers begin their evening with a nice dinner, followed by another energy-unit planning session.

Day 3

A fun day begins at 8 a.m. with breakfast at Wampee, a guided boat tour across Lake Moultrie, through the Pinopolis Lock, and down the Tailrace Canal to the Old Santee Canal Park, where the day's environmental lessons take place.

Following a visit to the Berkeley Museum, located on the park grounds, local naturalist Oliver Buckles guides the teachers along a section of the park's four-mile nature trail. He points out native

and non-native plants in the cypress-swamp environment as well as some of the wildlife, such as deer and alligators.

In the afternoon, the teachers explore the scope of Santee Cooper's environmental commitment through presentations from specialists representing Analytical and Biological Services and Vector Management. Some of the teachers even muster up enough bravery to climb into one of the park's canoes and paddle through a section of America's oldest true canal, constructed from 1793 to 1800. While moving through the waterway, they are able to identify plant species discussed in the presentations.

And once again, following dinner, the teachers participate in another energy-unit planning session.

Day 4

Everyone is exhausted by the last day. But there are a few more things the teachers need to do.

Santee Cooper is committed to educating people about electrical safety. Watching Santee Cooper's Powerline Hazard Awareness Demonstration, the teachers see first-hand the power of

electricity and are reminded of important safety tips. Once the teachers have a group photo taken, they say their good-byes, exchange contact information, and leave with an armload of information to share with their students back home.



Although tired, the teachers leave Santee Cooper with an energy unit ready for the school year and information that can be used in their classrooms.

"They work you to death, but I'm leaving here with a lot of information that I can share with my students,"



Cathy Dailey, a Bell Street Middle School teacher in Clinton, experiences the feel of an African millipede, used as a learning tool in Santee Cooper environmental education programs.

said Wanda Fleming, an elementary school teacher at St. John's Christian Academy in Moncks Corner, S.C.

Program with a Purpose

Santee Cooper is dedicated to providing support to South Carolina's schools. When the Energy Education Seminar began in 1988, it was only made avail-

able to schools in Santee Cooper's service territory, portions of Berkeley, Horry and Georgetown counties. Because of numerous requests for the program to be expanded, it is now open to all teachers across the state. Since its inception, over 850 teachers, college professors and school district personnel from all 46 counties have completed the program.

The purpose of the Energy Educator's Seminar is two-fold, according to Director of Educational Programs Barbara Allen.

"First, we want to increase each participant's knowledge of the electric utility industry, and then to increase their

ability to adapt Santee Cooper resources and field activities to their classroom and curriculum standards.

"We want to see the teachers take this information back to their classrooms in a format they can just drop into their lesson plans. One of the more important things I hope they gain is the respect and appreciation Santee Cooper has for the people who are responsible for educating our future work force."

If you'd like to learn more about Santee Cooper's Energy Education Seminar, send an e-mail note to bballen@santecooper.com.



Santee Cooper Educational Director Barbara Allen, second from left, with three seminar participants — Becky Roberts, Ginger Caston and Wanda Fleming, all teachers at St. John's Christian Academy in Berkeley County.



CONBRACO TURNS VALVES INTO GLOBAL VALUE

Conway firm's dedication to technological leadership is reflected in its newest facility: a \$22 million, 170,000-square foot steel casting foundry, probably the most advanced of its kind in the world.

Turn a valve that carries water, petroleum or gas, and there's a good chance it could be a Conbraco valve—or as they prefer to call it in the business, a “flow-control product.”

Valves aren't something the average person thinks about everyday. But envision a car wash. Something needs to control the flow of water. And that something is often a yellow-handled Conbraco Apollo ball valve. Apollo is their trademarked brand and known throughout the globe.

It's big business. Conbraco is a \$180 million multinational company based on

last year sales. Its Conway plant is one of Santee Cooper's 34 large industrial customers. Another plant in Pageland is served by Marlboro Electric Cooperative. A distribution center sits in Reno, Nev. and their European operations center is located in Manchester, England.

“We're one of the major valve manufacturers in the world,” said Joe Snurr, human resources manager at the Conway facility. “We're considered the ‘Cadillac’ of the industry. I think people need to remember that anything that moves through a pipe has to have a regulator. And that regulator or flow-control device



is typically a valve. And of course, we'd prefer that it be a Conbraco product.”

Snurr said that some of Conbraco's products are made of brass. In fact, the original name of the firm was the Consolidated Brass Co.

Above: Dick Kleine closely examines one of the 120,000 Teflon seals produced daily at Conbraco's Conway plant. He was the first employee hired at the Conway plant in 1983.

Left: A Casting Department worker taps electric furnace for stainless steel pour.

"Brass is still a major component of our product line," Snurr said. "But certain compounds are corrosive to brass. Most of what we make here in Conway is stainless steel."

Approximately 400 are employed in the building off U.S. Highway 501 housing three manufacturing operations: the foundry, machine shop and the Teflon seal division.

When you're making a top-notch product and working hard every day to stave off intensifying foreign competition from China, Korea and Italy, the last thing a plant manager needs to worry about is their power supply.



Robotic unit dips molds produced for the casting of stainless steel valve components.

Conbraco, like many manufacturers, has warily eyed electricity-restructuring results in other states—particularly California where rolling blackouts have occurred. Promises of lower power prices and customer choice are tremendously appealing. But price wouldn't be the only factor in such a decision.

"Price would have bearing," Snurr said. "But dependability is essential to us. Santee Cooper has proven they're responsive."

Reliability is particularly critical for the high-tech robots found throughout the plant or when molten steel is being



Human Resources Manager Joe Snurr displays a titanium top entry valve body produced by Conbraco. The Conway firm's foundry produces approximately 3 million pounds of steel castings per year.

"We've gotten great service from Santee Cooper," Snurr said. "They've made some significant improvements in the delivery of our power, rerouting lines. If we run into a problem, we know we can call Mike Brown or David O'Dell and it'll be taken care of. You guys have done a great job. We're well-satisfied with Santee Cooper."



Casting molds await removal from preheat furnace.

poured at the foundry. The two-shift, five-day a week operation has grown, more than doubling the plant that was originally constructed in 1983.

A company such as Conbraco greatly contributes to the diversity of the Horry County economy built on three elements: tourism, construction and agriculture.

Snurr said the greatest strength of locating in Conway is the availability of people who have a strong work ethic.

"The people here are willing to learn and interested in learning," he said. "We have been able to recruit and retain a good stable work force. Because of that, we have been able to meet our produc-

tion goals. Horry-Georgetown Technical College has been a good resource for us."

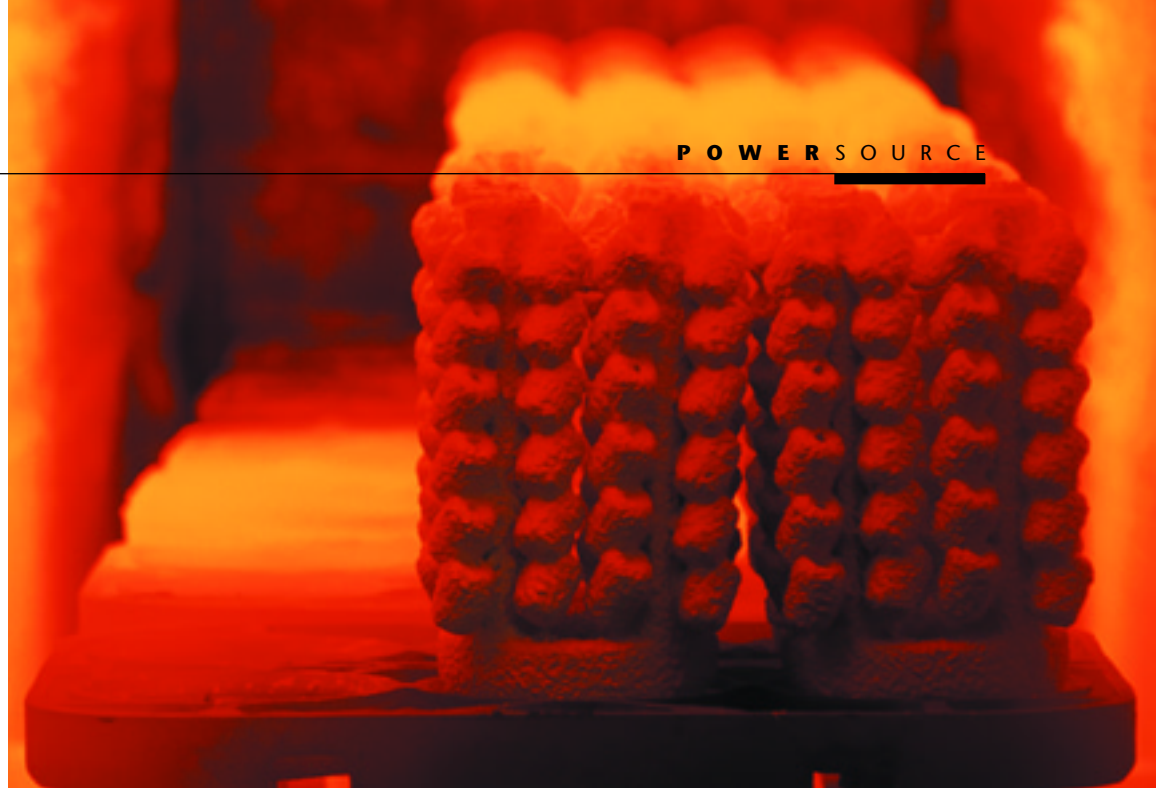
The majority of Conbraco's employees in Conway come from the

county seat and nearby small towns such as Loris and Aynor. Snurr says hiring hometown folks usually means a worker has deep roots in the community—an important facet of the firm's corporate character.

"Conbraco is a family owned and operated company," Snurr said. "We try to hire local people when we can and it's worked out well for us here. We plan on being a part of the Conway area for a long time to come."



Annual output at Conbraco's Conway plant is approximately 14,700,000 machined valve components per year.

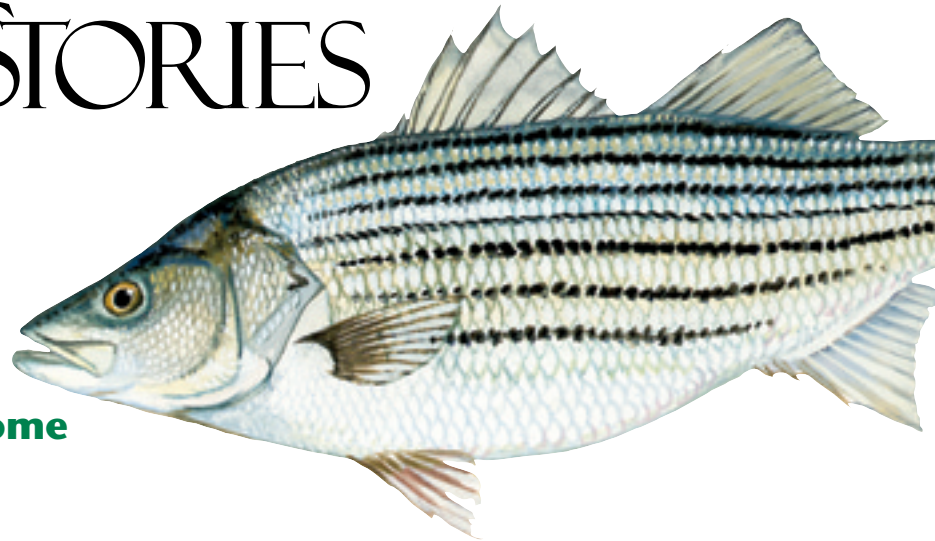


P O W E R S O U R C E



ONE OF THE ALL TIME GREAT FISH STORIES CONTINUES TO GROW

Striped bass only one chapter to come out of Santee Cooper's lakes.



The first chapter in one of the greatest fish stories of all time began on Nov. 12, 1941.

That's when the last of six gates at the Santee Spillway were closed and the impoundment of South Carolina's largest freshwater resource began.

It was the culmination of the Santee Cooper Hydroelectric and Navigation Project, the federally funded effort that was part of President Franklin Roosevelt's New Deal recovery program.

One of the nation's largest land-clearing projects ever, construction began in April 1939. With the project declared "substantially complete" in December 1942, electricity first flowed from the Pinopolis Power Plant (now called the Jefferies Hydroelectric Station) on Feb. 17 that same year.

The upper lake was originally called the Santee Reservoir, the lower lake the Pinopolis Reservoir. They were renamed Lake Marion and Lake Moultrie in





1944—for the Revolutionary War generals who were key to patriot victory in the Palmetto State.

The Santee Cooper project was intended to result in many great things: low-cost power, flood control, an active commercial waterway between Columbia and Charleston and the improvement of public health. While cargo-laden barges never really plied the waters from the coast to the capital, the project's goals were met with recreational opportunities being an added bonus.

Good fishing was expected to be a byproduct from the beginning. But no one could imagine that the Santee Cooper Lakes would emerge as the home of the world's first landlocked

striped bass—a highly prized game fish that quickly attracted the attention of anglers around the globe.

A happy quirk of nature was the reason. Fisheries biologists thought the striped bass, also called rockfish, would simply die out after being trapped in the lakes following dam closure. Stripers had historically been a sea fish that must return to freshwater to complete its life cycle—just like salmon.

But the anticipated die off didn't happen and the experts had to declare



something that had never happened before: The striped bass were actually reproducing in freshwater.

World record catches were recorded—with a big one by a local. The late NASCAR driver and Daytona 500 winner "Tiny" Lund, a resident of Cross on Lake Moultrie caught a 55-pound striped bass in 1963. The record stood until 1993,



Left: Big Bass Winner: Ricky Shumpert of Lexington brought in a final-round record of 28 pounds, 2 ounces to win the 2001 EverStart Series bass tournament on Lake Moultrie. His payoff: \$15,000, a new Ranger boat and a lot of bragging rights.

when a 55 pound 12 ounce striper was caught in Lake Thurmond.

"In the 1980s, professionals would routinely list the top three bass fisheries in the country," said Pat Robertson, long-time outdoors columnist at The State newspaper. "And it would be, not necessarily in this order: the Santee Cooper lakes, Lake Murray and the Sam Rayburn Lake in Texas."

The lakes were also a haven for other species of bass, including largemouth and white, as well as bream, crappie and catfish. It's the latter that has gained the latest notoriety. Catfishing was booming in the late 1980s, and the lakes began rapidly changing due to the incursion of an unexpected intruder.

Beginning in Lake Marion, non-native plants, hydrilla and the Brazilian elodea, began covering the lakes in ever increasing numbers. Mats of these weeds clogged landings, docks, marinas and boat motors. By 1995, 45,000 acres of the 156,000 acres comprising both lakes were covered.

In many areas, boats could not be launched. A great public and political outcry demanded action. By the late 1990s, a control program using sterile Chinese grass carp and environmentally friendly chemicals, gave the public its lake back.

Then came the droughts of 1999 and 2000, resulting in greatly reduced inflows in the lakes. Lake levels were so low

boaters had great difficulty launching—if they could launch at all. Businesses suffered. Several marina operators closed to wait it out or went out of business all together.

In an effort to keep lake levels stable, Santee Cooper extensively curtailed hydroelectric generation at the St. Stephen Powerhouse, a U.S. Army Corps of Engineer's facility on the Rediversion Canal. This move had a price. Santee Cooper lost \$6.5 million in generation from St. Stephen in 2000.

This year has been different. Lake levels, while not ideal, are higher and lakeside businesses have rebounded.

"From talking with all the fishing guides, the fish are back and fishing's great," said Mary Shriner, executive



director of the Santee Cooper Counties Promotion Commission.

Commonly known as Santee Cooper Country, the Santee, S.C.-based organization was created in 1968 by the Legislature. Its mission is to attract anglers, golfers, ecotourists and history buffs to the five counties surrounding the lakes: Berkeley, Calhoun, Clarendon, Orangeburg and Sumter.

According to the latest statistics from the S.C. Department of Parks, Recreation and Tourism, the annual direct economic impact of the lakes is \$218.4 million, employing 3,408 in the tourism industry.

"A positive aspect of the drought," Shriner said, "is that marina operators used it as an opportunity to upgrade launching facilities and docks. They took the lemons and made lemonade."

From Santee Cooper Country's attractive offices in a former nursery off S.C. Highway 6, 27,372 inquiries about the lakes were received in 2000 from walk-ins, the mail and the Internet. Shriner and her staff of two full-time

employees trek to trade shows in Ohio, New York, Louisiana, Pennsylvania and even Canada.

While golf is rivaling fishing as the prime draw, the angler's dream of catching the big one will always be the claim to fame of the Santee Cooper Lakes.

"We still stack up really well as a world-class fishery," said Terry Madewell, who writes on fishing for The Manning Times, a Clarendon County weekly newspaper. The Tennessee native holds a degree in fisheries and biology from Tennessee Tech University.

"The numbers of big fish are still higher than other places," Madewell said. "When you look at other lakes that are

newer, they may be booming. These lakes are almost 60 years old and you would be hard-pressed to find lakes with more consistent quantity and quality day-in and day-out. That's what sets these lakes apart."

"I think the lakes are in great shape," said Charlie Johnson, executive director of the Lake Marion Association. "I've been fishing the lakes since 1946. I don't think there's been a decline in the fish—just more people fishing. Back then, you'd never hear of people water skiing, that came in the '60s. And I'd say 75 to 80 percent of the people were cane-pole



fishing. You didn't have all these bass boats running around like you do now."

"If I had to pick one word to describe the lakes today, it would be 'improving,'" said Robertson. "We've seen a resurgence of stripers and one of the constants has been the catfish—big catfish. We're just continuously pulling out big catfish."

"These lakes are still a major draw and in the right areas, there's still some pretty good duck hunting."

Managing the lakes is a big responsibility. Working cooperatively with other agencies such as the S.C. Department of

Natural Resources and the U.S. Fish and Wildlife Service, Santee Cooper works to ensure that the lakes will continue to be one of the top environmental resources in the state and nation.

"I understand the need for Santee Cooper to recognize the needs of all the different users of the lakes," said Madewell. "That's a big responsibility."

And the task of working to balance the interests of anglers, hunters, boaters and all those who love the lakes, will always be Santee Cooper's ongoing challenge.

Fishing Records on the Santee Cooper Lakes

World Record

Channel catfish — 58 pounds

State Records

Largemouth bass — 16 pounds, 2 ounces

Black crappie — 5 pounds

Chain (jack) — 6 pounds, 4 ounces

Shellcracker — 5 pounds, 7 ounces

Warmouth — 2 pounds, 4 ounces

Arkansas blue catfish — 109 pounds, 4 ounces

Another Whopper! Lakes Marion and Moultrie, commonly called the Santee Cooper Lakes, are the home of the world's first landlocked striped bass fishery. This fine fish was caught in 1947 near the Jefferies Hydroelectric Station by John H. Turnage. It weighed 42.5 pounds and was 42.5 inches long.



IT'S 10:29 a.m. MONDAY: *Do you want to think green today?*



IT'S 10:30 a.m. MONDAY: *Time to learn about Green Power from Santee Cooper.*

If you live in Horry or Georgetown counties, today is a good day to buy "green power" from South Carolina's first renewable power generation program. Green power is electricity produced using renewable or natural resources such as wind, solar and even decomposing garbage. At full capacity, our new plant will generate 2.2 megawatts of power from methane gas at a landfill operated by the Horry County Solid Waste Authority. This plant will have the same positive environmental impact as planting 15,000 acres of trees. South Carolina's 20 electric cooperatives will soon be able to offer Green Power to their customers as well. To learn more, visit our Web site.

 **Santee Cooper**. POWER
www.santeecooper.com/greenpower

